Notification No. R. 6222—L. R. 147-11-4, dated 4th May 1912.

The following note regarding *lantana* by Dr. Butler, Director of the Agricultural Research Institute, Pusa, is published for general information :—

"I am more or less familiar with the conditions prevalent in the lantana-infected land (apart from reserved forest) in Coorg and parts of Mysore. The injury caused by the shrub is in no way exaggerated, and if the area covered is extending at the rate it was some years ago, the problem of its check is one of the most pressing which the Agricultural Departments of Mysore and Coorg have to face.

2. Badly infested land is not only rendered useless either for cultivation or grazing but it is a serious menace to the public safety. * * * *

3. In Coorg there were at the beginning of 1906 in round figures 110,000 acres overgrown with lantana, exclusive of reserved forest. Of this 70,000 acres was private land and 40,000 *paisari* (Government waste lands under the control of the Revenue Department). In addition there were 35,000 acres of reserved forest containing lantana in 1907-08. The magnitude of the task of clearing out the shrub in Coorg is, therefore, readily apparent.

4. I believe it may be laid down at once that any attempt at total eradication is hopeless. The plant has got too firm a hold of the province to be exterminated by any reasonably possible means. Any measures adopted should therefore aim at keeping cultivated and grazing lands free from the shrub, and at giving facilities for the reclamation of *paisari* land, and land that has been abandoned through having become overgrown with it. It is only after occupation that it is likely to be possible to secure permanent success in its eradication. Any regulations applied to existing cultivated and grazing land should equally apply to reclaimed waste land and should be a condition of its tenure.

5. Whether, in addition to this, it is possible to do anything with waste lands overrun with lantana or to prevent its further encroachment on such lands, is a question which only those familiar with the local conditions can decide. I do not believe that any attempt to clear waste land from it is in the least likely to be worth the trouble unless it becomes the direct permanent interest of the people, or of a Government Department like the Forest Department, to keep on destroying it. Much of the infested waste land is apparently useless for ordinary cultivation. At one time I believe *paisaries* were included in the "protected" forest area of Coorg, but this has been abandoned; in any case afforesting is clearly only advisable where the lantana can be kept down, because of the danger of fires. No other perennial cultivation is known to me which could be introduced into much of the *paisari* land, as the coffee area is limited and so also I think that suitable for fruit trees. It also seems clear from the correspondence that no great eagerness is being shown by the raiyats to take up waste land for ordinary dry cultivation. If this should equally prove to be the case in Mysore, where the terms granted for reclamation are apparently even more favourable than in Coorg, I think a case will be made for concentrating all efforts in both Coorg and Mysore on keeping existing cultivated and grazing land free from the weed. I assume that the greater part of the 70,000 acres of private infested land is or has recently been of this class.

6. The efforts made so far in Coorg to clear private land appear to have met with a considerable measure of success, but in the last couple of years the Lantana Eradication Reports show that energy has been devoted chiefly to keeping clear as much as possible of the area (about 30,000 acres) previously cleared. It would appear to be entirely within the bounds of possibility, by pursuing the energetic measures taken by the Commissioner of Coorg, strengthening his hands by giving him powers of compulsion, to free once for all in a comparatively short period, the whole of the 70,000 acres of private land infested by the shrub. Afterwards lantana should be proclaimed in the same way as the noxious weeds of many British Colonies are proclaimed from time to time, and the whole of the onus of destroying it thrown on the owner or occupier of the land.

7. The measures to be adopted would therefore be divided into two periods. First the period, estimated by the Commissioner at five years, during which a large organised campaign against the weed should be carried out, in order to clear it from the whole of the privately owned infested land. The details of this can only be worked out by the local authorities who know the conditions and have, besides, the experience of the past five years' attempts to guide them. The chief legal authority required would probably be that granted by the various Noxious Weeds Acts of the colonies referred to, *viz.*, that any authorised person may enter on any land where lantana is growing and destroyed it or order its destruction, recovering the cost from the owner of the land. But for several reasons, partly because it is very expensive to eradicate, partly because much of the land is likely to give little immediate return after clearing, partly because the people are in many cases probably too poor to afford the labour and expense entailed, there would appear to be a case for Government assistance in the shape of compensation or remission of revenue, or in some equivalent way. The only

thing to avoid in this would be any form of money payment which would put a premium on the possession of lantana infested land.

8. The second period would begin when the dense lantana jungles had disappeared from private land, and only stray plants, left over from the previous operations or growing from seed carried by birds, animals, the wind floods and the like, would spring up in the fields. Lantana should then be proclaimed a noxious weed, the presence of which on a person's land, after due warning, is punishable by fine.

9. In the Transvaal, New Zealand and South Australia, the provisions of the Noxious Weeds Acts are practically the same. In New Zealand, about which I have fullest information, the Act came into force in 1900. Under it the compulsory destruction of certain weeds is provided for. There are a number of Inspectors under the Act, who have power to enter any land and require the removal of the weeds at the owner's or occupier's expense. There are two schedules, the first being a list of three or four weeds whose removal from any land is compulsory, while the second is a longer list of weeds which may be notified by the local authority as noxious and only then are "proclaimed." Live hedges of certain of the proclaimed plants are permitted, provided they are kept from straggling. Up to the present the problem of dealing with waste lands, native reserves and to some extent grazing land, has not been solved, and there appear to be many complaints from settlers that their land becomes re-infested from these sources.

10. In South Australia the Commissioner has the right to give notice to local authorities to enforce the destruction of proclaimed noxious weeds. The penalty for default is £10, and the provisions appear to be essentially the same as in New Zealand.

11. In the Transvaal the Noxious Weeds Act of 1909 requires the occupier or owner to clear his land and keep it clear of any noxious weeds that may be from time to time proclaimed. Officers of the Department of Agriculture, Police and other authorised persons can enter the land and direct the clearing of it as in the other cases.

12. I have no exact information of the legislation in Europe or America. In the British Isles, Ireland and the Isle of Man have Acts for the eradication of weeds, presumably on much the same lines as those above mentioned. In France, farmers are required by law to destroy dodder by digging under and burying the crop attacked, and after thoroughly turning up the land sowing some gramineous crop on which dodder is unable to live. The problem is not the same in the closely settled lands of Europe, and the colonies afford a better guide as to what measures are feasible. Nearly all the colonies appear to have legislated for the purpose and those quoted above give sufficient information of the direction which the legislation has taken to enable suitable regulations to be framed for Coorg.

13. There remains only the forest area to be considered. It is apparent from the recent Forest Administration Reports that the lantana question will be actively taken up by the Forest Department, and we are therefore not called on to make any remarks on this aspect of the case.

14. I am not clear whether we are asked to advise as to the best way of destroying the shrub. If so, we cannot pretend to improve on the methods found by experience in Coorg to be satisfactory. The Forest Department has particularly given attention to this point. I would only warn Government against attempting to introduce any pest or disease, since this is fraught with great danger to the country."

By Order,

C. S. BALASUNDARAM IYER,
Officiating Secretary to Government, General and Revenue Departments.